

- c. printing said first object onto a transparent medium, and
 - d. printing an intermediate opaque white layer on said first object such that said white layer completely covers said first object but does not extend beyond the edges of said first object, and
 - e. printing said second object over said white intermediate layer such that said second object completely covers said white layer but does not extend beyond the edges of said white layer,
- whereby the resultant 2-sided image shows said object from 2 opposite sides.

- 38. The method of claim 37 without said opaque white middle layer for pictures that look visually correct when printed without a white background.
- 39. The method of claim 37 further stipulating that said transparent medium consists of decal material.
- 40. The method of claim 37 further stipulating that said transparent medium consists of a transparent rigid material suitable for physically cutting.

REMARKS – General

By the above amendment, Applicant has rewritten all claims to define the invention more particularly and distinctly so as to overcome the technical rejections and define the invention patentably over the prior art.

DETAILED ACTION – Responses

Election/Restrictions

- 1) Claims 8-36 are withdrawn from further consideration.

Claim Objections

2) Claims 2-3 were objected to because of informalities. Claims 2-3 are cancelled and new claims 38 – 40 were written without the informalities.

Claim Rejection – 35 USC § 112

3-4) Claims 4-7 were cancelled. Claims 37 – 40 were written to particularly point out and distinctly claim the subject matter of the invention. The invention of claim 37 is a 2-sided picture showing two opposite sides of an object printed on a transparent medium. Claim 38 is also for a 2-sided picture showing the front and back of an object printed on a transparent medium with the further stipulation that an intermediate opaque white layer not be printed between said front and back objects for images not requiring a white background in order to look visually correct. Claim 39 adds the stipulation that the transparent medium be decal material resulting in a 2-sided decal. Claim 40 adds the stipulation that the transparent medium be a rigid material suitable for cutting resulting in 2-sided figures.

Claim Rejection – 35 USC § 102

5-6) The Sodeyama invention applies a rear decorative *pattern* to a transparent plastic sheet and then a front decorative *pattern* on the rear decorative *pattern*. In Sodeyama's words the result is a bag that "increases degree of excitement to bag user."

The applicant's invention has novel physical features that distinguish it over Sodeyama:

- The present invention includes an opaque white middle layer printed congruently between the top and bottom layers. Sodeyama has no middle layer.
- The present invention uses actual front and back *pictures* of objects that have had the background removed. Sodeyama merely uses decorative *patterns* for the top and bottom

layers. In the example cited Sodeyama uses a decorative *pattern* of a watermelon and the decorative *pattern* of a watermelon's skin producing an object with 2 sides that "have a close relation to one another, thereby improving its taste."

- The present invention uses real front and back *pictures* or *photographs* with potentially complex shapes that have been modified to be congruent. The present patent also describes how to modify the images to achieve congruence with minimal distortion of the images. Sodeyama merely uses front and rear *patterns* that require no modification to achieve congruency.

By the use of an opaque white middle layer applicant's invention is suitable for 2-sided images using actual pictures or photographs that include white in the image or that depend on a white under layer to look visually correct. Sodeyama's invention lacks an opaque white middle layer and is therefore limited to objects that do not have white in the image and do not depend on a white under layer to look visually correct. Sodeyama's example of a watermelon *pattern* and the *pattern* of a watermelon skin can be printed using only green, red, and black. A *pattern* of a watermelon does not require white and if printed opaquely it can show a different front and back image without a white under layer.

Sodeyama does not use nor suggest creating 2-sided images showing two sides of real pictures or photographs and his invention is incapable of producing such pictures. Sodeyama's invention cannot create 2-sided images of most real pictures because it lacks a middle opaque white layer. In addition any attempt to use Sodeyama's invention to create real 2-sided images of objects, such as people that have non-trivial shapes, would fail because the front and back images would not be congruent unless the shapes had been modified; and, Sodeyama's invention does not allow for any way to modify the shapes.

The applicant's invention uses actual pictures of the front and back of real world objects, with potentially complex shapes, that have been modified to be congruent with minimal distortion of the images. Modification of the shape, without undue distortion of the image, is a non-trivial

task requiring sophisticated image editing software. Without modification actual pictures of the front and backs of real objects are only congruent for objects with simple shapes such as a round watermelon or a square box. Real front and back pictures of complex real world objects, such as photos of people, are not exactly congruent without modification of the shape of one or both images. Even the use of 2 photographs taken from 2 cameras that are placed directly in front and directly behind the subject and taken at the same instant will result in 2 non congruent images that must be modified to achieve congruence.

Claim Rejection – 35 USC § 103

7-8) The purpose of the Sagi invention is to create “a method for printing signs by printing a first ink layer directly on one face of a transparent substrate; applying an intermediate layer over the first ink layer; and printing a second ink layer directly on the intermediate layer.” The result is a sign that can be lit by front or rear lighting and can “display the same or different pictures from its opposite sides.”

The applicant’s invention has novel physical features that distinguish it over Sagi.

- The applicant’s invention includes a *printed* white middle layer that is congruent with the bottom and top layers. Sagi’s middle layer is not congruent with the other 2 layers; it is *sprayed* over the entire surface.
- The applicant’s invention uses top and bottom layers that are views from 2 opposite sides of the same object. Sagi uses any image for the front and back.
- The applicant’s invention uses 2 views of the same image that have been modified to be congruent with minimal distortion of the image. Sagi merely prints the same or any different image on the bottom and top layers as though it were 2 sides of a white piece of paper.

Sagi’s invention is for a 2-sided sign that has been printed on one side of a transparent medium. This is accomplished by printing a 1st layer on a transparent medium, then *spraying* a white layer directly over the entire surface, and finally printing a 3rd layer on top of the white layer. The

applicant's invention prints a 1st layer on a transparent medium, then *prints* an opaque white middle layer *congruently* on top of the 1st layer, and finally prints a 3rd layer *congruently* on top of the white middle layer. The result of the applicant's invention is a novel and unexpected 2-sided image displaying an object from 2 opposite sides.

Sagi's claim #11 adds the stipulation that the middle layer is printed instead of being sprayed. Claim #11 does not state nor imply that the shape, size, nor amount of image to be covered by the white layer in claim 11 is any different than any of the other claims. Since Sagi's patent and all claims except #11 use a sprayed middle layer, and do not suggest nor require congruence of the 3 layers, it is clear that claim #11 also is not suggesting congruence of the layers.

For signs that are backlit, Sagi uses a white semi-opaque material for the intermediate layer. Since the middle layer is semi-opaque the back image will show through to the front when backlit. This will result in a correct picture only if the front and back images are identical and printed exactly one above the other. In this embodiment of Sagi's invention both images are identical and congruent. The white middle semi-opaque layer still covers the entire surface and is not congruent with the top or bottom layers.

Sagi's invention does not suggest creating a 2-sided image that shows the opposite sides of one image and it is incapable of creating such an image. It lacks congruent top, middle and bottom layers and lacks any method to achieve congruence of the images.

9) In Patent Office letter Hicks, Kroner and Kondo were cited to show other examples of a method of printing a picture having two sides. Blake and Sugawara were cited to show examples of a method of printing a picture including a white layer between top and bottom printed layers.

Hicks' invention is for translucent window coverings. It lacks an opaque white middle layer. The purpose is to let in some light while providing some privacy. Since it is translucent it cannot have different front and back images.

Kroner's invention has top and bottom images that are congruent with an intervening opaque white layer. The top and bottom images of the applicant's invention are the front and back views of real images or photographs that have been digitally modified to be congruent with minimal distortion of the images. The only practical way to modify complex similar but non congruent images, such as front and back photographs of people, with minimal distortion of the images, is to use sophisticated computer image editing software programs as described in the present patent. Kroner's patent was granted in 1936 and does not include, nor does it suggest, the use of real world front and back photographs to create 2-sided images. The back side of a non-trivially shaped object will not be congruent with the front side without modification of the shape of one or both images with image editing software and that was not possible in 1936. Using Kroner's invention to create front and back images of real photos is not an obvious extension as it requires non trivial image editing and has not been done in the 69 years since Kroner's invention by people knowledgeable in the art. The current invention is new, unexpected, superior and surprising.

Kondo's invention includes a white layer that "is printed on the whole face of the top side of the rear face picture color print layer". None of Kondo's top, middle or bottom layers are congruent. If Kondo's invention were used to show the front and back of a real world object it would look no more unusual than seeing a normal printed piece of paper that has the front of an object printed on one side of the paper and the back of the object printed on the other side of the paper.

Blake's invention is used to create billboards, signs and displays that look the same with front or back lighting. His middle layer is a translucent white that lets some light through. It therefore cannot have a different picture from the front and the back as one image would bleed through to the other image.

Sugawara's invention is used for transparent circuit boards. It does not use congruent top and bottom images nor does it suggest using real world photos to create an image showing the front and back of real world objects.

OBVIOUSNESS

A. **Unexpected Results:** The results achieved by this invention are new, unexpected, superior, unusual, and surprising. By printing the one side of an object from an actual picture or photograph on top of a congruent image of the opposite side of the same object, with an intervening congruent opaque white layer, a very unique and striking image results. The result is a surprising image that shows the complete picture showing both halves not just one half of the picture. The resulting 2-sided image has a 3-D like feel to it. The image created is unique, aesthetically pleasing and potentially more informative than 2 one sided pictures.

These 2-sided images have been shown commercially at the Orange County Fair in California from July 11, 2003 – August 3, 2003. They were displayed on rotating platforms. People walking by were consistently surprised when the object rotated in front of them and they saw that the back side of the picture was actually the back side of the object.

B. **Commercial Success:** When the product of this invention was shown at the Orange County Fair large crowds were drawn to the displays. People were surprised, excited and pleased with the 2-sided pictures they saw. People at the fair paid to have 2-sided pictures taken of themselves and their children. The pictures were taken, printed and sold in frames and on see through objects such as cups, wineglasses and key rings. Samples of a 2-sided portrait and a 2-sided business card using the method of this invention are included with this mailing.

A web page "www.marshallhouseinc.com/BSNBusOpp.htm" has been set up and advertised on the internet to promote this application. Numerous inquires have been received from this

site for more information and possible joint ventures. The requests have come from all over the United States and from 21 different countries.

- C. **Unrecognized Problem:** None of the referenced patents are able to produce images showing the actual front and back of real objects. A) Sodeyama only suggests using an appropriate pattern to look like the outside of a watermelon or a fish. The idea to take two actual photographs from the front and back and then digitally modify one or both of them in such a manner that they are congruent but not distorted is not done nor suggested. B) Sagi's middle layer is sprayed over the entire surface, not printed congruently over the bottom image. C) None of the referenced patents suggest creating front and back images of actual objects taken from real images or photographs; nor are any of the referenced patents capable of displaying front and back images of complex real world objects.
- D. **Lack of Implementation:** The fact that those skilled in the art have not implemented Creating 2-sided photographs of real world photos, despite its great advantages of novelty, attractiveness, and providing more information in a single image, shows that the current invention is not obvious.
- E. **Solved Different Problem:** A) The purpose of the Sodeyama patent is to create an image that can be placed on a transparent object such as a transparent bag to "improve a taste in the design". Sodeyama's patent creates an image that can be printed and viewed from the front with a "decorative pattern" on the backside. Sodeyama's example shows simplistic images with patterns of objects printed on transparent bags. Sodeyama's patent does not show nor suggest, nor is it capable of creating, actual 2-sided front and back pictures of real world objects. B) Sagi's patent is for solving the problem of printing signs that can display "the same or different pictures from its opposite sides."

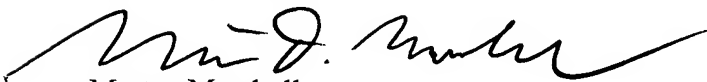
Conclusion

For all of the above reasons, applicant submits that the specification and claims are now in proper form, that the claims comply with Section 112, and that the claims all define patentably over the prior art under Section 102. The current invention uses front and back images of actual objects that have been modified to be congruent with minimal distortion of the image resulting in a surprising, new and unique 2-sided image showing the front and back view of actual objects. The claimed distinctions are of patentable merit under Section 103 because of the new results provided. Accordingly, applicant submits that this application is now in condition for allowance, which action applicant respectfully solicits.

Conditional Request for Constructive Assistance

Applicant has amended the claims of this application so that they are proper, definite, and define novel structure which is also unobvious. If, for any reason this application is not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings. If the examiner agrees that patentable subject matter is present but that the present claims are not technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j)

Very respectfully,



Marten Marshall

-----Applicant Pro Se-----

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